1035-05-179 Hortensia Galeana-Sanchez* (hgaleana@matem.unam.mx), Area de la Investigacion Cientifica, Circuito, Exterior, Cd. Universitaria, 04510 Mexico, Mexico, and Matej Stelik (matej@matem.unam.mx), Area de la Investigacion Cientifica, Circuito, Exterior, Cd. Universitaria, 04510 Cd. de Mexico, Mexico. Hypergraph transversals and kernels in digraphs. Preliminary report.

In this talk we relate the existence of kernels in digraphs to the existence of certain transversals of associated hypergraphs. This method allows us to prove several new sufficient conditions on the existence of kernels in digraphs. In particular we prove a weaker form of the following (false) conjecture of Meyniel from 1980: If D is a digraph such that every odd directed cycle has at least two pseudodiagonals, then D has a kernel. (Received August 13, 2007)